Claims

1. (Currently Amended) An adapter for use in a handpiece system that includes a supply conduit and a medical instrument having an electrical operating element thereon, the adapter comprising:

an adapter body having a first body end, ~~edge~~ a second body end, and a substantially straight longitudinal axis extending between the first and second body ends, wherein the first body end is adapted for attachment to one of the supply conduit and the medical instrument and the second body end is adapted for attachment to the other of the supply conduit and the medical instrument; and

first and second adapter electrical leads connectable to a voltage or power supply, wherein, when the adapter is in place between the supply conduit and the medical instrument with the adapter electrical leads electrically connected to the supply conduit and to the medical instrument, electrical power is received by the adapter from the supply conduit and transmitted through the adapter to the operating element, and

wherein the adapter is selectively switchable without disassembly by a manual operation to move the adapter leads relative to the supply conduit to match a polarity of the electrical power transmitted from the supply conduit to a polarity required by the operating element, ~~and~~ wherein the first adapter electrical lead comprises a first end and the second adapter electrical lead comprises a second end, said first and second ends being axially offset along ~~a~~ the longitudinal axis of the adapter body such that the first end is located a first distance from the first ~~edge~~ body end ~~of the adapter body~~ and the second end is located a second distance from the first ~~edge~~ body end ~~of the adapter body~~, where the first distance is not equal to the second distance, wherein the adapter comprises a hollow space for releasable accommodation of a coupling spigot, and wherein said first and second ends are located at the periphery of said hollow space.

2. (Previously Presented) The adapter of claim 1, wherein the operating element has first and second contacts to which said first and second adapter electrical leads may be detachably connected in a first orientation with said first lead connected to said first contact and said second lead connected to said second contact, and said adapter is configured for rotation about an axis thereof to a second orientation whereby said first lead is connected to said second contact and

said second lead is connected to said first contact to reverse the polarity of electrical power transmitted to the operating element.

3. (Previously presented) The adapter of claim 2, wherein the operating element comprises a light source requiring electrical power to be supplied thereto in a selected polarity and said adapter is configured for detachment from said contacts and when detached may be rotated between at least two predetermined positions and reconnected to said contacts to permit selection of the polarity of electrical power transmitted from said supply conduit to said light source.

4. (Original) The adapter of claim 3, wherein said two predetermined positions are disposed at 180 degrees relative to each other.

5. (Previously Presented) The adapter of claim 2, wherein the first end and second end of the adapter electrical leads each comprises a slide contact.

6. (Original) The adapter of claim 2, wherein said leads and contacts are connected by non-rotatable plug contacts.

7. (Previously presented) The adapter of claim 1, wherein the adapter body is configured to accommodate lines for the transmission of fluids or drive energy extending through the adapter body.

8. (Currently Amended) The adapter of claim 1 which comprises a pair of substantially fixed connectors electrically isolated from each other, said pair of connectors comprising a first connector which may be connected to a first power transmission line in said supply conduit and a second connector which may be connected to a second power transmission line ~~is~~ in said supply conduit, the first and second adapter electrical leads comprising a first lead which may be connected to a first contact of the operating element and a second lead which may be connected to a second contact of the operating element, and a switchable connection between said connectors and said leads which when in one switched condition provides an electrical current

path from said first connector to said first lead and from said second connector to said second lead, and in a second switched condition provides an electrical current path from said first connector to said second lead and from said second connector to said first lead.

9. (Original) The adapter of claim 8, wherein said switchable connection comprises portions of said first and second leads which are movable between different circuit routings to reverse the polarity of electrical power transmitted from said supply conduit to said operating element.

10. (Original) The adapter of claim 8, wherein said switchable connection comprises a switch.

11. (Original) The adapter of claim 1, wherein said leads each are divided into sections in which there are rigid sections and movable sections, and whereby different lead routing results through the connection of the movable sections to the rigid sections.

12. (Original) The adapter of claim 11, which further comprises a switch for making a selected connection between movable sections and rigid sections.

13. (Currently Amended) A light emitting apparatus including a light source requiring a selected polarity of power supply connected to a supply conduit through which electrical power is transmitted and an adapter connected between the light source and the supply conduit, said adapter having an adapter body with a first body end, a second body end, and a substantially straight longitudinal axis extending between the first and second body ends, wherein the first body end is adapted for attachment to one of the supply conduit and the light source and the second body end is adapted for attachment to the other of the supply conduit and the light source, the adapter body comprising

first and second electrical leads connectible to the power supply, and being selectively switchable without disassembly by a manual operation to move the electrical leads of the adapter relative to the supply conduit to match the polarity of electrical power transmitted from the supply conduit to the selected polarity required by the light source,

wherein the first electrical lead comprises a first end and the second electrical lead comprises a second end, said first and second ends being axially offset along ~~a~~ the longitudinal axis of the adapter body such that the first end is located a first distance from ~~a~~ the first body end ~~edge of the adapter body~~ and the second end is located a second distance from the first body end ~~edge of the adapter body~~, where the first distance is not equal to the second distance,

wherein the adapter comprises a hollow space for releasable accommodation of a coupling spigot, and

wherein said first and second ends are located at the periphery of said hollow space.

14. (Previously Presented) The apparatus of claim 13 wherein the light source is connected to first and second contacts to which said first and second leads may be detachably connected in a first orientation with said first lead connected to said first contact and said second lead connected to said second contact, and said adapter is configured for rotation about an axis thereof whereby said first lead is connected to said second contact and said second lead is connected to said first contact to reverse the polarity of electrical power transmitted to the operating element.

15. (Original) The apparatus of claim 14, wherein said adapter is configured for detachment from said contacts and when detached may be rotated between at least two predetermined positions and reconnected to said contacts to permit selection of the polarity of electrical power transmitted from said supply conduit to said light source.

16. (Original) The apparatus of claim 15, wherein said two predetermined positions are disposed at 180 degrees relative to each other.

17. (Previously presented) The apparatus of claim 13, further comprising a light conductor positioned to conduct light from said light source to a selected treatment site.

18. (Previously presented) The apparatus of claim 14, wherein one end of a lead of said adapter comprises a slide contact.

19. (Original) The apparatus of claim 14, wherein said leads and contacts are connected by non-rotatable plug contacts.

20. (Currently Amended) The apparatus of claim 13 wherein said adapter comprises a pair of substantially fixed connectors electrically isolated from each other, said pair of connectors comprising a first connector which may be connected to a first power transmission line in said supply conduit and a second connector which may be connected to a second power transmission line ~~is~~ in said supply conduit, the first and second electrical leads of the adapter being electrically isolated from each other, said first lead connected to a first contact of the light source and said second lead connected to a second contact of the light source, and a switchable connection between said connectors and said leads which when in one switched condition provides an electrical current path from said first connector to said first lead and from said second connector to said second lead, and in a second switched condition provides an electrical current path from said first connector to said second lead and from said second connector to said first lead.

21. (Original) The apparatus of claim 20, wherein said switchable connection comprises portions of said first and second leads which are movable between different circuit routings to reverse the polarity of electrical power transmitted from said supply conduit to said operating element.

22. (Original) The apparatus of claim 20, wherein said switchable connection comprises a switch.

23. (Original) The apparatus of claim 13, wherein said leads each are divided into sections in which there are rigid sections and movable sections, and whereby different lead routing results through the selected connection of the movable sections to the rigid sections.

24. (Original) The apparatus of claim 23, which further comprises a switch for making a selected connection between movable sections and rigid sections.

25. (Currently Amended) A handpiece system comprising

a supply hose having a distal end coupling device with axially offset supply contacts for supplying electrical power transmission from an external power source,

a handle sleeve having a light source contained therein with receiving contacts for connecting the light source to receive electrical power from said coupling device, and

an adapter having an adapter body connectible between said coupling device and light source and having first and second electrical leads connectible to the power source, wherein the adapter body has a first body end, a second body end, and a substantially straight longitudinal axis extending between the first and second body ends, wherein the first body end is adapted for attachment to one of the coupling device and the light source and the second body end is adapted for attachment to the other of the coupling device and the light source, wherein the adapter is selectively switchable without disassembly by a manual operation to move the electrical leads of the adapter relative to the supply contacts of the supply conduit to match the polarity of electrical power transmitted from the power source to that needed by the light source, and wherein the first adapter electrical lead comprises a first end and the second adapter electrical lead comprises a second end, said first and second ends being axially offset along ~~a~~ the longitudinal axis of the adapter body such that the first end is located a first distance from ~~a~~ the first body end ~~edge of the adapter body~~ and the second end is located a second distance from the first body end ~~edge of the adapter body~~, where the first distance is not equal to the second distance, and wherein the adapter comprises a hollow space for releasable accommodation of a coupling spigot, and wherein said first and second ends are located at the periphery of said hollow space.

26. (Previously Presented) The handpiece system of claim 25, wherein the electrical leads of the adapter comprise first and second electrical power transmission leads and said receiving contacts comprise first and second contacts to which said leads may be detachably connected in a first orientation with said first lead connected to said first contact and said second lead connected to said second contact, and said adapter is configured for rotation about an axis thereof to a second orientation whereby said first lead is connected to said second contact and said second lead is connected to said first contact to reverse the polarity of electrical power transmitted to the operating element.

27. (Original) The handpiece system of claim 25, wherein said adapter is configured for detachment from said receiving contacts and when detached may be rotated between at least two predetermined positions and reconnected to said receiving contacts to permit selection of the polarity of electrical power transmitted from said supply hose to said light source.

28. (Currently Amended) The handpiece system of claim 25, further comprising a pair of substantially fixed connectors electrically isolated from each other, said pair of connectors comprising a first connector which may be connected to a first power transmission line in said supply hose and a second connector which may be connected to a second power transmission line ~~is~~ in said supply hose, wherein the first and second leads are electrically isolated from each other, said first lead being connected to a first receiving contact of the light source and said second lead being connected to a second receiving contact of the light source, and a switchable connection between said connectors and said leads such that when in one switched condition provides an electrical current path from said first connector to said first lead and from said second connector to said second lead, and in a second switched condition provides an electrical current path from said first connector to said second lead and from said second connector to said first lead.

29. (Original) The handpiece system of claim 28, wherein said switchable connection comprises portions of said first and second leads which are movable between different circuit routings to reverse the polarity of electrical power transmitted from said supply hose to said light source.

30. (Canceled)

31. (Previously presented) The adapter of claim 1, wherein the adapter is selectively switchable when connected by rotating at least a portion of the adapter body relative to the supply conduit and to the medical instrument.

32. (Previously presented) The apparatus of claim 13, wherein the adapter is selectively switchable by rotation.

33. (Previously presented) The handpiece system of claim 25, wherein the adapter is selectively switchable by rotation.

34. (Canceled)

35. (Currently Amended) An adapter for use in a handpiece system that includes a supply conduit and a medical instrument having an electrical operating element thereon, the adapter comprising:

an adapter body and first and second adapter electrical leads with respective first and second axially offset slide contacts, wherein the first and second adapter electrical leads are connectible to a voltage or power source, and wherein said adapter body has a first body end, a second body end, and a substantially straight longitudinal axis extending between the first and second body ends, wherein the first body end is adapted for attachment to one of the supply conduit and the medical instrument and the second body end is adapted for attachment to the other of the supply conduit and the medical instrument;

wherein, when the adapter is in place between the supply conduit and the medical instrument and the slide contacts are connected, electrical power is received by the adapter from the supply conduit and transmitted through the adapter to the operating element, and

wherein the adapter is selectively switchable without disassembly by a manual operation to move the ~~transmission~~ adapter electrical leads relative to the supply conduit to match a polarity of the electrical power transmitted from the supply conduit to a polarity required by the operating element, wherein the adapter comprises a hollow space for releasable accommodation of a coupling spigot, and wherein said first and second axially offset slide contacts are located at the periphery of said hollow space.

36. (Currently Amended) A light emitting apparatus comprising:

a light source requiring a selected polarity of power supply connected to a supply conduit through which electrical power is transmitted; and

an adapter connected between the light source and the supply conduit, said adapter having a first body end, a second body end, a substantially straight longitudinal axis extending

between the first and second body ends, wherein the first body end is adapted for attachment to one of the supply conduit and the light source and the second body end is adapted for attachment to the other of the supply conduit and the light source, the adapter comprising first and second adapter electrical leads and respective first and second axially offset slide contacts, wherein the first and second adapter electrical leads are connectible to a voltage or power source, said adapter being selectively switchable without disassembly by a manual operation to move the adapter electrical leads relative to the supply conduit to match the polarity of electrical power transmitted from the supply conduit to that required by the light source, wherein the first adapter electrical lead comprises a first end and the second adapter electrical lead comprises a second end, said first and second ends being axially offset along ~~a~~ the longitudinal axis of the adapter ~~body~~ such that the first end is located a first distance from the first body end ~~edge of the adapter body~~ and the second end is located a second distance from the first body end ~~edge of the adapter body~~, where the first distance is not equal to the second distance, wherein the adapter comprises a hollow space for releasable accommodation of a coupling spigot, and wherein said first and second ends are located at the periphery of said hollow space.

37. (Currently Amended) A handpiece system comprising

a supply hose having a distal end coupling device with supply contacts comprising axially offset slip rings for supplying electrical power transmission from an external power source,

a handle sleeve having a light source contained therein with receiving contacts for connecting the light source to receive electrical power from said coupling device, and

an adapter connectible between said coupling device and light source, said adapter having a first body end, a second body end, and a substantially straight longitudinal axis extending between the first and second body ends, wherein the first body end is adapted for attachment to one of the supply hose and the light source and the second body end is adapted for attachment to the other of the supply hose and the light source, the adapter comprising first and second adapter electrical leads and respective first and second axially offset slide contacts connectible to the supply contacts, wherein the first and second adapter electrical leads are connectible to the external power source, wherein the adapter is selectively switchable without disassembly by a manual operation to move the transmission leads relative to the supply hose to match the polarity

of electrical power transmitted from the power source to that needed by the light source, wherein the adapter comprises a hollow space for releasable accommodation of a coupling spigot, and wherein said first and second axially offset slide contacts are located at the periphery of said hollow space.

38. (Canceled)

39. (Previously presented) The apparatus of claim 13, wherein the apparatus comprises a sleeve defining a hollow interior space and an end cap sized to fit an end of a sleeve, and wherein the adapter is configured to be received in the sleeve with the end cap fitted to the sleeve to secure the adapter in place.

40. (Currently Amended) The adapter of claim 35, wherein the ~~adapter comprises a~~ hollow space is configured to accommodate a rotary coupling of the supply conduit comprising the coupling spigot, wherein each of the first and second adapter electrical leads comprises a first portion which is disposed circumferentially around the hollow space, so that the rotary coupling may be accommodated between these first portions of the leads, and wherein ~~each of~~ the first adapter electrical lead comprises a first end that provides the first slide contact and the second adapter electrical lead ~~leads~~ comprises a second end that provides ~~portion which provide~~ the ~~first and~~ second slide contact ~~contacts~~, said ~~second portions~~ first end and second end extending towards the hollow space.

41. (Currently Amended) The light emitting apparatus of claim 36, wherein the ~~adapter comprises a~~ hollow space is configured to accommodate a rotary coupling of the supply conduit comprising the coupling spigot, wherein each of the first and second adapter electrical leads comprises a first portion which is disposed circumferentially around the hollow space, so that the rotary coupling may be accommodated between these first portions of the leads, and wherein ~~each of~~ the first end of the first adapter electrical lead provides the first slide contact and the second end of the second adapter electrical lead ~~leads comprises a second~~ provides ~~portion which~~

~~provide~~ the ~~first and~~ second slide contact ~~contacts~~, said ~~second portions~~ first end and second end extending towards the hollow space.

42. (Currently Amended) The handpiece system of claim 37, wherein the supply conduit comprises a rotary coupling which comprises the axially offset slip rings and the coupling spigot and wherein the ~~adapter comprises a~~ hollow space is configured to accommodate ~~a~~ the rotary coupling of the supply conduit, wherein each of the first and second adapter electrical leads comprises a first portion which is disposed circumferentially around the hollow space, so that the rotary coupling may be accommodated between these first portions of the leads, and wherein ~~each of~~ the first adapter electrical lead comprises a first end that provides the first slide contact and the second adapter electrical lead ~~leads~~ comprises a second end that provides ~~portion which provide~~ the ~~first and~~ second slide contact ~~contacts~~, said ~~second portions~~ first end and second end extending towards the hollow space.